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Sustainable Value Chain Analysis: A Case Study of South Australian Wine Executive Summary

Introduction

- The Australian wine industry is facing one of its greatest challenges in living memory – to compete on a global stage with quality wines that are accessible to the mass market, without jeopardising the livelihoods of wine producers, the communities they serve or the environment upon which they rely. Industry leaders are looking for ways to improve the industry's competitiveness into the future.
- This project explores the potential for using Sustainable Value Chain Analysis as a tool for achieving better alignment between resource allocation, environmental management and consumer value, in the context of Australian wine destined for the UK supermarket sector. The analysis is illustrated in the attached diagrams (Diagrams 1 and 2); showing the value of using Sustainable Value Chain Analysis as a strategic business decision making tool.
- The Oxford Landing – Tesco Value Chain was selected for this case study, given that Oxford Landing Estate is based in South Australia (the largest wine producing state in Australia), and exports to Tesco (the largest supermarket customer for Australian wine) in the UK (the greatest consumer of Australian wine outside of Australia). As such there are a range of learnings that can be taken from this Value Chain Analysis and applied to the analysis of other South Australian Value Chains.
- Co-investment by all stakeholders in the project shows the benefit of Value Chain members investing in, and then sharing, information generated by consumer research. An output of the project is the UK consumer research that, if used wisely, can inform the targeting of consumer preferences with specific attributes in wine products.
- Key Findings outlined in the analysis relate to:
  1. Consumer value
  2. Material flow
  3. Emissions
  4. Information flow
  5. Relationships

Methodology

- The project uses Value Chain Analysis (VCA) and Life Cycle Analysis (LCA) to map and analyse the Oxford Landing – Tesco (OLT) Value Chain.
- The VCA provides an assessment of material flows, information flows, and stakeholder relationships. The LCA provides an assessment of CO2 emissions, from grape to glass.
- The VCA is then viewed alongside the LCA highlighting the way in which consumers value both physical and emission generating activities.

Key findings

1 Consumer value

- Sustainability is a concept that remains poorly understood amongst UK supermarket shoppers. More sustainable wine production/packaging may be something that retail buyers are requesting of their suppliers, in an effort to support socially responsible strategic initiatives; however very few UK shoppers currently value sustainability as an attribute of the wine they purchase from supermarkets.
- There is a significant degree of heterogeneity in the level of importance supermarket shoppers attach to different wine attributes. There are clear opportunities for segmentation, however a strong consensus around the most and the least important attributes for wine purchases from a supermarket: price, type of wine (e.g. sweet/dry), colour, grape variety and promotional activity are the most highly rated attributes. Bottle design, closure, sustainability of production/packaging, 'wine miles', front label, weight of the bottle and suitability for vegans/vegetarians are the lowest rated attributes for a regular wine purchase.
- UK consumers who purchase wine from a supermarket regard Australian wines as reliable ('it will never let you down'), good quality and good value. However, Australian wines are rarely on the radar when they are looking for something special.
- Oxford Landing is regarded as a 'typical' Australian wine (a 'safe bet') but for many supermarket shoppers the selection of Oxford Landing, like most 'everyday' wines, is triggered by a promotion, which in the case of a known brand is difficult to resist and requires little effort, and thus, attention to the bottle or the label.
- More time is taken when shopping for something special, when price and promotional offers are substantially less influential, but on these occasions UK supermarket shoppers are less likely to consider Australian wines than more expensive alternatives from other countries (notably France and Italy).

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Key findings *continued*

2 Material flow (refer to Figure 1)

- The VCA highlights the dominance of necessary but non-value adding activities in the OLT Value Chain, which implies a focus on efficiency and suggests that there is limited scope for adding value.
- The OLT material flow is largely efficient, but the process of trans-shipping wine from the Oxford Landing Winery to Yalumba Angaston for bottling is considered wasteful, causing excessive motion and double handling.
- Tesco's approach to merchandising and setting promotion slots, introduces greater uncertainty in forecasting annual sales which potentially creates waste or loss of profit along the Value Chain.

3 Emissions (refer to Figure 1)

- The LCA reveals relatively low carbon emissions occurring downstream (retail and final consumption) but substantial contribution made in the vineyard, particularly from trellising system components and viticulture practices, and at the winery, particularly bottling and packaging. Together these account for more than one-half of the total carbon emissions from the chain.
- Whilst many consumers and commentators believe that transportation is a major contributor to the carbon emissions, the LCA data for the OLT Value Chain indicates that transportation, from the winery to the Tesco shoppers' household, is actually a relatively minor contributor.
- The recent attention directed towards alternative packaging formats is justified by the emissions data – bottling, packaging and labelling together account for 15% of total emissions. However, the fact that consumers regard the appearance of the bottle and the information on the label as 'value adding' means that investment in more sustainable packaging formats should be made with caution, and with due consideration of consumer preferences.
- Low cost solutions that are effective in reducing emissions may reduce the perceived value of the wine in the eyes of the consumer, resulting in less not more value being added as a result of reducing the carbon footprint.

4 Information flow

- The OLT Value Chain contains a mixture of strong and weak information flows between and within organisations. A clear correlation exists between the nature of relationships and information flows. Relationships appear slightly weaker with downstream partners (e.g. Tesco) and with the secondary players (e.g. logistics providers).
- Moreover, the understanding of the customer (Tesco) needs and consumer wants (value) is distinctly limited upstream, particularly amongst input suppliers and growers.
- The information flow between Yalumba and consumers is weak: Yalumba rely on their product labelling to communicate with consumers and do not undertake much direct marketing. To date, they have invested little in consumer research, relying primarily on product quality and promotional activity to engage with supermarket shoppers.

5 Relationships

- The OLT Value Chain is characterised by strong relationships. There are many examples of best practice throughout the chain. Yalumba is widely respected as a customer, supplier, and as a place to work.
- Tesco rate Yalumba highly, Oxford Landing is recognised as a good value wine at the price point and Yalumba's unique selling properties (still family-owned, long history, sustainability credentials) are recognised as supporting Tesco's vision for a rounded category.
- Yalumba need to make more use of their strong relationship with Tesco to engage more effectively in strategic dialogue with respect to sustainability and to the longer term development (and possible re-positioning) of the Oxford Landing range.

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Figure 1: Value adding and Emissions in the Oxford Landing - Tesco Value Chain

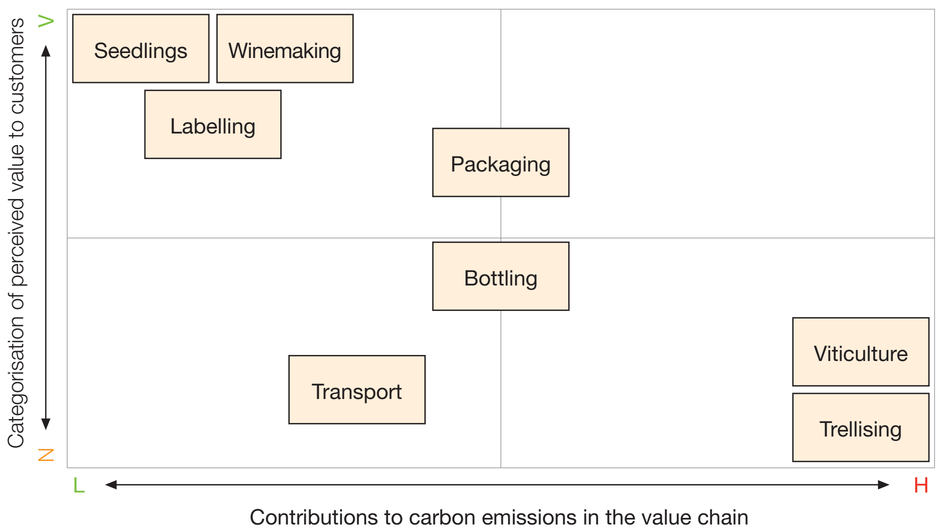
Inputs	Growers	OL Winery	Yalumba Angaston	Tesco	Consumers
• Seedlings (V) • Rootstock (N) • Fertiliser & chemicals (N) • Trellising (N)	• Land management (N) • Viticulture practice (N) • Irrigation (N) • Harvest (N) • Despatch (N)	• Receiving (N) • Crushing (N) • Winemaking (N) • Blending (V) • Laboratory (N) • WIP storage (N) • Despatch (W)	• Wine receipt (W) • Bottling (V) • Labelling (V) • Packaging (V) • Storage (W) • Export approval (W) • Despatch (N) • Waste (W)	• Receiving (N) • Storage (W) • Merchandising (N) • Waste & returns (W)	• Brand (V) • Grape variety (V) • Colour of wine (V) • Country of origin (V) • Price (V) • Type of wine (V) • Bottle appearance (V) • Label, front & back (V)

Material flow (V) Value-adding (N) Necessary but not value-adding (W) Waste

23.2%	28.2%	5.3%	30.2%	1.2%	10.0%
• Seedlings (X) • Rootstock (X) • Fertiliser & chemicals (L) • Trellising (H)	• Irrigation (L) • Harvest (L) • Land management (L) • Despatch (L) • Viticulture practice (H)	• Receiving (X) • Laboratory (X) • WIP storage (X) • Despatch (X) • Blending (L) • Crushing (L) • Winemaking (L)	• Export approval (X) • Wine receipt (X) • Storage (X) • Despatch (L) • Labelling (L) • Waste (L) • Bottling (M) • Packaging (M)	• Merchandising (X) • Waste & returns (X) • Storage (X) • Receiving (X)	• Storage (X) • Consumption (X) • Travel (M)

Greenhouse gas emissions % (X) No/minimal impact (L) Low impact (M) Medium impacy (H) High impact

Figure 2: The value/emissions trade-off matrix



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Conclusions

- Overall, the Oxford Landing – Tesco Value Chain is characterised by efficient material flow, reasonable information flows and strong relationships.
- Currently the ability to accurately predict short and long term supply and demand is widely regarded as a lottery, causing significant costs (wasted investment) and missed opportunities for Yalumba and growers. Thus, the greatest opportunity for improvement lies in leveraging already strong relationships, to improve the flow of information (strategic and operational) and enable more effective forecasting of supply and demand.
- Oxford Landing, like so many successful Australian wine brands, suffers from brand loyalty being inextricably linked to promotions. The brand managers of Oxford Landing recognise the need to supplement their winemaking competence with a more detailed understanding of shopper behaviour and consumer preferences.
- In depth market intelligence (including consumer research) would enable Yalumba to break out of the commodity trap and more effectively reach the distinct market segments, targeting their differential preferences with specific attributes when feasible. Other Australian wine businesses would do well to follow suit, with this project showing a shared approach in sharing the cost of the research (as well as sharing the resulting information) resulting in making consumer research more affordable for the smaller businesses in the industry.
- The value of emissions data as an input to sustainable Value Chain management and decision-making is enhanced substantially when viewed alongside the categorisation of activities in the material flow analysis, in which consumer value is used to categorise the physical activities undertaken. (Refer to Figure 1) This should underpin investment/innovation strategies which simultaneously optimise both value in the eyes of the consumer and environmental management (Refer to Figure 2).
- The results of combining VCA and LCA also informs government policy and programmes to ensure interventions are designed and targeted to achieve compatible competitiveness and environmental outcomes.
- Although taking a case study approach, this project has identified generic lessons and possible improvement projects at a sector level.
- The findings illustrate the potential of this approach for other South Australia food and beverage value chains.

For more information

For full report of the Sustainable Value Chain Analysis case study please go to www.pir.sa.gov.au/wine/value_chains or contact PIRSA on the details below.

Supported by

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